

عنوان مقاله:

Evaluation of the Diagnostic Value of Procalcitonin in Acute Pyelonephritis Indices in Patients Referred to the Hospital

محل انتشار:

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خلاصه مقاله:

Introduction: Uncomplicated urinary tract infection (UTI) is a widespread global ailment. The aim of this investigation was to evaluate the diagnostic efficacy of procalcitonin (PCT) in discriminating acute pyelonephritis from other lower urinary tract infections. **Material and Methods:** This applied research concentrated on patients with acute pyelonephritis who were referred to Hazrat Valiasr Qaemshahr Hospital. A straightforward (random) sampling technique was implemented. Leukocyte count, ESR, serum CRP, and PCT measurements were obtained from all patients. **Results:** Procalcitonin demonstrated positive results in ۹۸.۵% of pyelonephritis cases and ۵% of cystitis cases, signifying a statistically significant differentiation ($P=۰.۰۰۱$). The diagnostic accuracy of procalcitonin was ۹۷.۷%, while its sensitivity and specificity were ۹۸.۵% and ۹۵%, respectively. A notable correlation between serum PCT and CRP levels was observed in patients with acute pyelonephritis ($P=۰.۰۳۸$). The serum level of PCT in patients with acute pyelonephritis did not manifest any statistically significant variances based on age, gender, or history of urinary tract infection ($P > ۰.۰۵$). **Conclusion:** Based on the findings of g research, it can be deduced that procalcitonin functions as a dependable indicator for distinguishing acute pyelonephritis from other urinary tract infections. Consequently, its utilization for this purpose is recommended. Ultimately, conducting further studies with a larger sample size and in a multicenter manner is advised to validate the findings obtained in this study.

کلمات کلیدی:

Acute pyelonephritis, leukocyte count, Erythrocyte sedimentation rate, C-reactive protein, Procalcitonin

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